

CLAIMS

1. A process for obtaining an isolated polynucleotide sequence comprising a DNA sequence encoding a polypeptide comprising an aspartic protease amino acid sequence,
5 wherein the process comprises the steps of modifying the polynucleotide sequence to encode an extra polypeptide N-X-T glycosylation site in the aspartic protease amino acid sequence and isolating the modified polynucleotide sequence encoding a modified polypeptide.
- 10 2. The process for obtaining an isolated polynucleotide sequence of claim 1, wherein the aspartic protease is a chymosin.
3. The process for obtaining an isolated polynucleotide sequence of claim 2, wherein the chymosin is a mammalian chymosin.
- 15 4. The process for obtaining an isolated polynucleotide sequence of claim 3, wherein the mammalian chymosin is bovine chymosin.
5. The process for obtaining an isolated polynucleotide sequence of any of claims 2
20 to 4, wherein the polypeptide is selected from the group consisting of pre-prochymosin, prochymosin and mature chymosin.
6. The process for obtaining an isolated polynucleotide sequence of any of claims 1 to 5, wherein the modified polypeptide comprises at least one -N-X-T- site introduced at
25 position 291-293 according to the chymosin numbering (Gilliland, 1990).
7. The process for obtaining an isolated polynucleotide sequence of claim 6, wherein the modified polypeptide is modified by substituting S₂₉₃ with T creating a N-X-T glycosylation site.
- 30 8. The process for obtaining an isolated polynucleotide sequence of any of claims 1 to 7, wherein the modified polypeptide comprises, within the aspartic protease amino acid sequence, an artificial linker comprising a N-glycosylation site, preferably a N-X-T glycosylation site.

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9. The process for obtaining an isolated polynucleotide sequence of any of claims 1 to 8, wherein the polypeptide comprises a fusion protein comprising the aspartic protease amino acid sequence connected to a fusion partner.
- 5 10. The process for obtaining an isolated polynucleotide sequence of claim 9, wherein the fusion partner is selected from the group consisting of glucoamylase, alpha-amylase, cellobiohydrolase and a part thereof.
11. The process for obtaining an isolated polynucleotide sequence of claim 8, wherein
10 the artificial linker sequence is situated between a pro-sequence and a fusion partner of claim 10.
12. An isolated polynucleotide sequence comprising a DNA sequence encoding a polypeptide comprising an aspartic protease amino acid sequence, obtainable by a process for obtaining an isolated polynucleotide sequence of any of claims 1 to 11.
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13. A method of producing a polypeptide exhibiting aspartic protease activity comprising the steps of cultivating a host organism comprising an isolated polynucleotide sequence of claim 12 and isolating the produced polypeptide exhibiting aspartic protease
20 activity.
14. The method of producing an isolated polypeptide of claim 13, wherein the host organism is a yeast cell or a filamentous fungal cell.
- 25 15. The method of producing an isolated polypeptide of claim 14, wherein the host organism is a filamentous fungal cell is an *Aspergillus* cell preferably selected from the group consisting of *Aspergillus niger* and *Aspergillus niger* var. *awamori*
16. An isolated polypeptide exhibiting aspartic protease activity comprising a N-X-T
30 glycosylation site.
17. The isolated polypeptide of claim 16, wherein the aspartic protease is a chymosin.
18. The isolated polypeptide of claim 17, wherein the chymosin is a mammalian chymosin.
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19. The isolated polypeptide of claim 18, wherein the mammalian chymosin is bovine chymosin.

20. The isolated polypeptide of any of claims 16 to 19, wherein the polypeptide comprises at least one -N-X-T- site introduced at position 291-293 according to the chymosin numbering (Gilliland, 1990).

21. The isolated polypeptide of claim 20, wherein the polypeptide comprises T₂₉₃ creating a N-X-T glycosylation site.